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**PETITION FOR REVIVAL OF AN APPLICATION FOR PATENT
ABANDONED UNINTENTIONALLY UNDER 37 CFR 1.137(b)**

Docket Number (Optional)
M41.1

First named inventor: Bhadra et al.

Application No.: 09/787,244

Art Unit: 3762

Filed: May 16, 2001

Examiner: Evanisko

Title: COMBINED STIMULATION OF VENTRAL AND DORSAL SACRAL ROOTS FOR CONTROL OF BLADDER FUNCTION

Attention: Office of Petitions
Mail Stop Petition
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450
FAX (703) 872-9306

NOTE: If information or assistance is needed in completing this form, please contact Petitions Information at (703) 305-9282.

The above-identified application became abandoned for failure to file a timely and proper reply to a notice or action by the United States Patent and Trademark Office. The date of abandonment is the day after the expiration date of the period set for reply in the office notice or action plus an extensions of time actually obtained.

APPLICANT HEREBY PETITIONS FOR REVIVAL OF THIS APPLICATION

NOTE: A grantable petition requires the following items:

- (1) Petition fee;
- (2) Reply and/or issue fee;
- (3) Terminal disclaimer with disclaimer fee - required for all utility and plant applications filed before June 8, 1995; and for all design applications; and
- (4) Statement that the entire delay was unintentional.

1. Petition fee

☒ Small entity-fee \$ 750 (37 CFR 1.17(m)). Applicant claims small entity status. See 37 CFR 1.27.

☐ Other than small entity - fee \$ _____ (37 CFR 1.17(m))

2. Reply and/or fee

A. The reply and/or fee to the above-noted Office action in the form of Response under 37 CFR 1.111 (identify type of reply):

- ☐ has been filed previously on _____.
- ☒ is enclosed herewith.

B. The issue fee and publication fee (if applicable) of \$ _____.

- ☐ has been paid previously on _____.
- ☐ is enclosed herewith.

[Page 1 of 2]

This collection of information is required by 37 CFR 1.137(b). The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 1.0 hour to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Mail Stop Petition, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

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06/03/2005 MAHME1 0000069 121677 09787244

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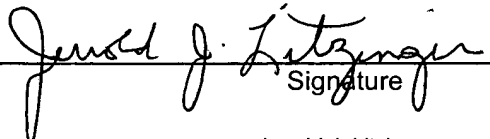
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

3. Terminal disclaimer with disclaimer fee

- ☒ Since this utility/plant application was filed on or after June 8, 1995, no terminal disclaimer is required.
- ☐ A terminal disclaimer (and disclaimer fee (37 CFR 1.20(d)) of \$ _____ for a small entity or \$ _____ for other than a small entity) disclaiming the required period of time is enclosed herewith (see PTO/SB/63).

4. STATEMENT: The entire delay in filing the required reply from the due date for the required reply until the filing of a grantable petition under 37 CFR 1.137(b) was unintentional. [NOTE: The United States Patent and Trademark Office may require additional information if there is a question as to whether either the abandonment or the delay in filing a petition under 37 CFR 1.137(b) was unintentional (MPEP 711.03(c), subsections (III)(C) and (D)).]

WARNING: Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038.

 Signature Jerrold J. Litzinger Typed or printed name 2134 Madison Rd. Address Cincinnati, OH 45208 Address	May 31, 2005 Date 29402 Registration Number, if applicable 513-871-8812 Telephone Number
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- Enclosures: ☐ Fee Payment
- ☒ Reply
- ☐ Terminal Disclaimer Form
- ☒ Additional sheets containing statements establishing unintentional delay
- ☐ Other: _____

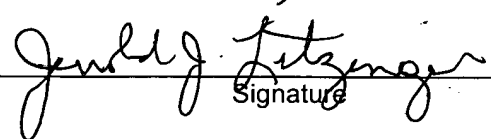
CERTIFICATE OF MAILING OR TRANSMISSION [37 CFR 1.8(a)]

I hereby certify that this correspondence is being:

- ☒ Deposited with the United States Postal Service on the date shown below with sufficient postage as first class mail in an envelope addressed to: Mail Stop Petition, Commissioner for Patents, P. O. Box 1450, Alexandria, VA 22313-1450.

- ☐ Transmitted by facsimile on the date shown below to the United States Patent and Trademark Office as (703) 872-9306.

May 31, 2005
Date


 Signature
 Jerrold J. Litzinger
 Typed or printed name of person signing certificate



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: BHADRA, et al :
Serial No.: 09/787,244 : Group Art Unit: 3762
Filing Date: May 16, 2001 : Examiner: Evanisko
For: COMBINED STIMULATION :
OF VENTRAL AND DORSAL :
SACRAL ROOTS FOR :
CONTROL OF BLADDER :
FUNCTION :

Mail Stop Petition
Honorable Commissioner for Patents
P. O. Box 1450
Alexandria, VA 22313-1450

PETITION FOR REVIVAL OF AN APPLICATION FOR PATENT ABANDONED
UNINTENTIONALLY UNDER 37 CFR 1.137(b) – ADDITIONAL SHEETS

The undersigned attorney filed the aforementioned patent application on May 16, 2001 based on a PCT Application PCT/US99/21049 which was filed September 14, 1999, having a priority date of September 16, 1998. In April, 2003, the undersigned was contacted by Dr. Thomas Mortimer, a co-inventor and president of the assignee Axon Engineering, Inc., informing me that this application was one of a group that had been licensed to Medtronic in Minneapolis, Minnesota. I sent all of my files to Dr. Mortimer to send along to Medtronic.

In March, 2003, I received an Office Action for the aforementioned application. I promptly sent this to Dr. Mortimer, asking him if he wanted me to respond to it. I never received an answer to my letter.

In September of 2004, I received another Office Action from the examiner in the aforementioned application. I promptly sent it to Dr. Mortimer.

In November of 2004, I received a call from Dr. Mortimer telling me that the license agreement with Medtronic had been cancelled, and asking me if I wished to take over prosecution of these applications. In January of 2005, I agreed to take over the prosecution of the Axon portfolio. I received the files from Medtronic in March of 2005, and there was no Office Action for the aforementioned application contained therein. I sent a change of Power of Attorney form to Dr. Mortimer to be signed so that I could continue to prosecute

the application. A signed Revocation with New Power of Attorney is included herewith. Apparently, no Revocation of my original Power of Attorney had ever been filed.

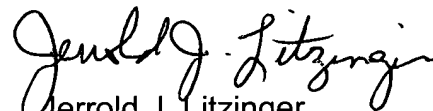
In mid-April, 2005, I received a Notice of Abandonment from the PTO for the aforementioned application. I contacted Medtronic to inquire why no response had been filed, and was told that they never received the Office Action. In searching for the Office Action, Medtronic could not find a copy, and Dr. Mortimer finally located a copy in his files, and sent it to me.

After I received the Office Action, I refamiliarized myself with the technology and drafted the enclosed response. One of the inventors was out of town until Tuesday, May 24, 2005, and when I obtained the necessary information, I prepared the enclosed response.

It is submitted that the assignee had no intention of abandoning this application, and the entire delay in filing the required reply from the due date for the required reply until the filing of a grantable petition under 35 CFR 1.137(b) with the required response was unintentional, as the assignee was not aware that a response had not been filed. When it was learned that this application had become abandoned, the assignee acted quickly to file this petition to revive.

Enclosed with this petition is a Fee Transmittal sheet for charging the Petition Fee of \$75.00 to Account No. 12-1677. The assignee of this application is a small entity, and the application is no longer licensed. If a statement of small entity is required, let me know and I will supply it.

Respectfully submitted,



Jerrold J. Litzinger
Reg. No. 29402
2134 Madison Road
Cincinnati, Ohio 45208
(513) 871-8812

I hereby certify that this correspondence is being submitted by Jerrold J. Litzinger, Attorney for Applicants with the United States Postal Service as first class mail in an envelope addressed to: Commissioner of Patents and Trademarks, Washington, D.C. 20231, on May 31, 2005.

JERROLD J. LITZINGER
Person Signing Certificate

Jerrold J. Litzinger
Signature of Person Signing
Certificate

May 31, 2005
Date of Signature



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: BHADRA, et al	:	
Serial No.: 09/787,244	:	Group Art Unit: 3762
Filing Date: May 16, 2001	:	Examiner: Evanisko
For: COMBINED STIMULATION OF VENTRAL AND DORSAL SACRAL ROOTS FOR CONTROL OF BLADDER FUNCTION	:	

Honorable Commissioner for Patents
P. O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

RESPONSE UNDER 37 CFR § 1.111

Responsive to the Office Action dated September 20, 2004,
please amend the above identified application as follows:

IN THE CLAIMS

Claim 1 (Cancelled).

Claim 2 (Currently Amended): The method of claim [[19]] 20 wherein the first electrode comprises a self-sizing cuff electrode.

Claim 3 (Currently Amended): The method of claim [[19]] 20 wherein the second electrode comprises a self-sizing cuff electrode.

Claim 4 (Cancelled).

Claim 5 (Currently Amended): The method of claim [[19]] 20 wherein the first stimulus pulses comprise a quasitrapezoidal pulse train at 20 Hz.

Claim 6 (Currently Amended): The method of claim [[19]] 20 wherein the first stimulus pulses comprise a conventional rectangular pulse train at 20 Hz.

Claim 7 (Currently Amended): The method of claim [[19]] 20 wherein the second stimulus pulses comprise an intermittent pulse train at 20Hz having a one second on/1 second off pattern.

Claim 8 (Currently Amended): The method of claim [[19]] 20 wherein the first and second electrodes are applied to the dorsal and ventral roots of the S3 sacral nerve.

Claim 9 (Currently Amended): The method of claim [[19]] 20 wherein the second stimulus pulses have a nominal amplitude of less than 1 mA and a pulse duration of 10 to 100 μ sec.

Claim 10 (Currently Amended): The method of claim [[19]] 20 wherein the stimulus pulses transmitted to said first electrode have a nominal amplitude of 1 mA and a pulse duration of 350 to 500 μ sec.

Claim 11 (Cancelled).

Claim 12 (Currently Amended): The apparatus of claim [[11]] 21, wherein the first electrode comprises a self-sizing cuff electrode.

Claim 13 (Currently Amended): The apparatus of claim [[11]] 21, wherein the second electrode comprises a self-sizing cuff electrode.

Claim 14 (Cancelled).

Claim 15 (Currently Amended): The apparatus of claim [[11]] 21, wherein the first stimulus pulses comprise a quasitrapezoidal pulse train at 20 Hz.

Claim 16 (Currently Amended): The apparatus of claim [[11]] 21, wherein the second stimulus pulses comprise an intermittent pulse train pattern of 1 second off/1 second on.

Claim 17 (Currently Amended): The apparatus of claim [[11]] 21, wherein the first stimulus pulses have a nominal amplitude of 1 mA and a pulse duration of 350 to 500 μ sec.

Claim 18 (Currently Amended): The apparatus of claim [[11]] 21, wherein the second stimulus pulses have a nominal amplitude of 1 mA and a pulse duration of 10 to 100 μ sec.

Claim 19 (Cancelled).

Claim 20 (New). A method for controlling bladder discharge in a patient, comprising the steps of:

transmitting a first series of stimulus pulses only to a single sacral ventral root of a patient by using a first electrode which is coupled directly to said ventral root; and

simultaneously transmitting a second series of stimulus pulses only to a single sacral dorsal root corresponding to the ventral root of the patient by using a second electrode which is coupled directly to said dorsal root,

thereby emptying the bladder.

Claim 21 (New). An apparatus for the control of bladder function in a patient by combined stimulation of ventral and dorsal sacral roots, comprising:

a first electrode adapted to be coupled directly to a sacral ventral root of a patient and further adapted to deliver a first series of stimulus pulses only to said sacral ventral root through said first electrode;

a second electrode adapted to be coupled directly to a sacral dorsal root corresponding to said sacral ventral root and further adapted to deliver a second series of stimulus pulses only to said sacral dorsal root through said second electrode;

and control means, electrically coupled to said first and second electrodes, for generating said first and second pulses simultaneously, sufficient to cause the bladder of the patient to contract, whereby emptying the bladder.

REMARKS

Of claims 2-19 pending in this application, claims 4, 11, 14, and 19 have been cancelled, claims 2, 3, 5-10, 12, 13, and 15-18 have been amended, and new claims 20 and 21 have been added. Reconsideration of this application in view of this response is respectfully requested.

Claims 2-19 stand rejected under 35 USC § 112, first paragraph, as failing to comply with the written description requirement, as the examiner states that the claims contain subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventors, at the time the application was filed, had possession of the claimed invention, and also that any negative limitation or exclusionary proviso must have basis in the original disclosure.

New claims 20 and 21 now state that the first electrode is adapted to be or coupled directly to a sacral ventral root, and the second electrode is adapted to be or coupled directly to a sacral dorsal root corresponding to the sacral ventral root and that a first series of stimulus pulses is delivered only to the sacral ventral root and simultaneously a second series of stimulus pulses is delivered only to the sacral dorsal root. Support for this language is found at page 6, lines 21-14 to page 7, lines 1-15. FIG. 1 of the drawings also show these electrodes as being coupled directly to these roots. In addition, the specification states that these roots are illustrated as being separated, that the roots are normally joined together and progress as a single trunk, shown at 21. The present procedure

identifies each root individually and places an electrode only on each root, so that the desired series of stimulus pulses is delivered only to that root, which is understood by anyone of ordinary skill in this art. By using this technique, the desired emptying of the bladder is accomplished without resorting to an extensive dorsal rhizotomy. Therefore, it is submitted that claims 2, 3, 5-10, 12, 13, 15-18, 20 and 21 are not indefinite under 35 USC § 112, first paragraph, and are also patentable over the cited prior art.

Claims 11-18 stand rejected under 35 USC § 112, second paragraph, as being indefinite, as the term "second series" was omitted. As this error was corrected in new claim 21, this rejection should be moot.

CONCLUSION

Applicants respectfully request that this Response be entered by the Examiner, placing all pending claims in condition for allowance. Applicants submit that this response not raise new issues or necessitate an additional search of the art by the Examiner.

Should the Examiner feel that there are any issues outstanding after consideration of this Response, the Examiner is invited to contact Applicants' undersigned representative to expedite the prosecution.

It is believed that no fee is due with the filing of this response, as the total number of claims is less than 20, and the number of independent claims is less than three. If a fee is due, please charge the fee to deposit Account No. 12-1677.

For the reasons given above, it is believed that all claims now contained in this application are in condition for allowance, and such favorable action is respectfully requested.

Respectfully submitted,



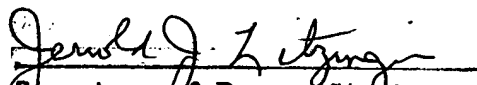
Jerrold J. Litzinger
Attorney for Applicants
Reg. No. 29,402
2134 Madison Road
Cincinnati, Ohio 45208
(513) 87-8812

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Commissioner of Patents and Trademarks, Washington, D.C. 20531, on May 31, 2005.

ALEXANDRIA, VA 22313

JERROLD J. LITZINGER

Person Signing Certificate



Signature of Person Signing Certificate

May 31, 2005

Date of Signature

JUN 02 2005

PTO/SB/17 (12-04v2)

Approved for use through 07/31/2006. OMB 0651-0032

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

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FEE TRANSMITTAL

For FY 2005

Fees pursuant to the Consolidated Appropriations Act, 2005 (H.R. 4818).

Complete if Known

Application Number 09/787,244
 Filing Date 05/16/2001
 First Named Inventor Bhadra
 Examiner Name Evanisko
 Art Unit 3762
 Attorney Docket No. M41.1

☒ Applicant claims small entity status. See 37 CFR 1.27

TOTAL AMOUNT OF PAYMENT (\$) 750

METHOD OF PAYMENT (check all that apply)

☐ Check ☐ Credit Card ☐ Money Order ☐ None ☐ Other (please identify): _____

☒ Deposit Account Deposit Account Number: 12-1677 Deposit Account Name: Jerrold J. Litzinger

For the above-identified deposit account, the Director is hereby authorized to: (check all that apply)

☒ Charge fee(s) indicated below ☐ Charge fee(s) indicated below, except for the filing fee

☒ Charge any additional fee(s) or underpayments of fee(s) under 37 CFR 1.16 and 1.17 ☒ Credit any overpayments

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FEE CALCULATION

1. BASIC FILING, SEARCH, AND EXAMINATION FEES

Application Type	FILING FEES		SEARCH FEES		EXAMINATION FEES		Fees Paid (\$)
	Fee (\$)	Small Entity Fee (\$)	Fee (\$)	Small Entity Fee (\$)	Fee (\$)	Small Entity Fee (\$)	
Utility	300	150	500	250	200	100	
Design	200	100	100	50	130	65	
Plant	200	100	300	150	160	80	
Reissue	300	150	500	250	600	300	
Provisional	200	100	0	0	0	0	

2. EXCESS CLAIM FEES

Fee Description	Fee (\$)	Small Entity Fee (\$)
Each claim over 20 (including Reissues)	50	25
Each independent claim over 3 (including Reissues)	200	100
Multiple dependent claims	360	180
Total Claims	Extra Claims	Fee (\$)
- 20 or HP =	x	=
HP = highest number of total claims paid for, if greater than 20.		
Indep. Claims	Extra Claims	Fee (\$)
- 3 or HP =	x	=
HP = highest number of independent claims paid for, if greater than 3.		

3. APPLICATION SIZE FEE

If the specification and drawings exceed 100 sheets of paper (excluding electronically filed sequence or computer listings under 37 CFR 1.52(e)), the application size fee due is \$250 (\$125 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).

Total Sheets Extra Sheets Number of each additional 50 or fraction thereof Fee (\$) Fee Paid (\$)

- 100 = / 50 = (round up to a whole number) x =

4. OTHER FEE(S)

Non-English Specification, \$130 fee (no small entity discount)

Other (e.g., late filing surcharge): Petition Fee For Unintentionally Abandoned Application

Fees Paid (\$)

750

SUBMITTED BY

Signature *Jerrold J. Litzinger* Registration No. 29402 Telephone 513-871-8812
 Name (Print/Type) Jerrold J. Litzinger Date May 31, 2005

This collection of information is required by 37 CFR 1.136. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 30 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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